

**Notice of Allowability**

Application No.

10/806,688

Applicant(s)

WILHELM, DANA

Examiner

Tuyet Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to December 01, 2005.
2. ☒ The allowed claim(s) is/are 2-10, 12-18 and 20.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_



**TUYET VO**  
**PRIMARY EXAMINER**

## DETAIL ACTION

### *Examiner's Amendment*

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as following:

In the claim, claim 2, line 4, insert --and-- after "half-bridge;"

claim 6, line 4, insert --and-- after "half-bridge;"

claim 12, line 5, insert --and-- after "half-bridge;"

claim 20, line 5, insert --and-- after "half-bridge;"

The above noted amendment has been added in order to provide a clarification in the claim language.

### *Reasons For Allowance*

2. Claims 2-10, 12-18 and 20 are allowed.

3. The following is an examiner's statement of reasons for allowance: the prior art of record fails to disclose a voltage offset detection circuit for detecting a voltage at a midpoint of a switching half-bridge by comprising a high voltage device coupled to the midpoint of the switching half-bridge to register a detect voltage related to the voltage at the midpoint of the switching half-bridge and a voltage detection output circuit coupled to the high voltage device for receiving the detection voltage and outputting a signal to contribute to operation of the switching half-bridge circuit to avoid hard-switching based on the voltage at the midpoint of the switching half-bridge circuit, wherein the high voltage device is referenced to a switching half-bridge low voltage return reference as required in claim 2, or comprising a comparator having an input coupled to the high voltage device, whereby an output of the comparator indicates when the voltage at the midpoint of the switching half-bridge has reached a value to avoid hard-

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switching when a low side switch in the switching half-bridge is turned on as required in claim 6, or the high voltage device is selectively enabled to register the detection voltage as required in claim 20. The prior art also lacks to support method of actuating the high voltage device to register the detection voltage when a high side switch in the switching half-bridge is turned off as required in claim 12.

4. The remaining dependent claims are allowable for at least above reason.

5. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. None of cited/recorded prior arts stands alone or combination with others discloses all limitation required in claim invention.

## Remarks

Amendment filed December 01, 2005 has been entered.

## *Correspondence*

Any comments considered necessarily by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuyet Vo whose telephone number is (571) 272 1830. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272 1834. The fax phone number for the organization where this application or proceeding assigned is (571) 273-8300 for regular communications and for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571 272 2800.

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Information regarding the status of an application or status information for publishing/unpublishing applications may be obtained from the Patent Application Information Retrieval (PAIR) system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the PAIR system, contact the Electronic Business Center (EBC) at toll free 866-217-9197.

A handwritten signature in cursive script, appearing to read 'Tuyet Vo', written over a horizontal line.

Tuyet Vo

Primary Examiner

December 27, 2005